

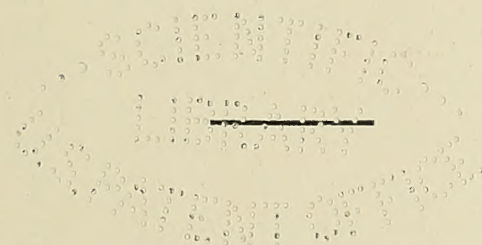
20

5-2219
Ink
5-

International Marine Engineering

VOLUME XVIII

JANUARY TO DECEMBER, 1913



PUBLISHED BY

ALDRICH PUBLISHING CO.

(INCORPORATED)

17 BATTERY PLACE, NEW YORK, U. S. A.

31 CHRISTOPHER STREET FINSBURY SQUARE, LONDON, E. C.

INDEX.

NOTE.—Illustrated articles are marked with an (*) asterisk

ARTICLES

- Adeline Smith, performance of lumber-carrying steamer *375
- Advantages of low ratio of heating surface to grate area in boilers..... 245
- Air pumps, influence of on the military efficiency of turbine-driven warships. Morison *420
- Alaska, Yukon river boat *472
- Alkmaar, triple-screw motor ship. Wilson 32
- Alsatian, turbine steamer for Allan Line. *165
- American-built steam yacht Lydonia. Reed *66
- American steamers on the Magdalena river *478
- Amolco, single-screw molasses tank steamer *378
- Annual Report of Lloyd's Register of Shipping for the year 1912-1913..... 510
- Anti-destroyer guns. Koon *237
- Aquitania, launch of *214
- Argentine battleship Rivadavia *445
- Armored river monitors for Brazil. Coleman *471
- Assessment of Panama Tolls by net tonnage measurement an injustice..... 466
- Ballin's sectional watertube marine boilers *517
- Barges, shallow draft producer gas motor *467
- Battle-cruiser Tiger, British 290
- Battleship Benbow, British *125
- Battleship Jean Bart, French 288
- Battleship Pennsylvania, United States.. *170
- Battleship Rivadavia, Argentine *445
- Battleships Provence and Bretagne, French *328
- Benbow, British battleship 125
- Berkshire, Hudson river steamer *282
- Boilers, advantages of low ratio of heating surface to grate area in..... 245
- Boilers, Ballin watertube..... *517
- Bridgit, large motor-driven ferry..... *477
- British battle-cruiser Benbow 125
- Bunkering H. M. S. Melpomene *419
- Buoys and lighthouses of New York harbor. Pattison *1
- Burgermeister O'Swald, motor lightship. Wilson *155
- Carioca, ocean-going salvage tug for the Brazilian Government *425
- California, 11,000-ton motor ship..... *523
- Cerbere and Pluton, mine layers 375
- Chaplain, launch of steamer *437
- Chilian submarine Iquique, launch of *295
- Chinese river boats *475
- Chinese training cruiser Ying Swee. Coleman *231
- Col. M. B. Adams—a 4-yard dipper dredge. King *280
- Collier Jupiter, propelling machinery for. Emmet *323
- Comte de Flandre, shallow draft oil steamer 87, *466
- Congress, trial runs of Pacific Liner.. *283, 415
- Cost of handling coal and iron-ore on the Great Lakes 301
- Coupling of cruising turbines, device to facilitate. Yarrow *397
- Courbet, official trials of the French battleship 408, *443
- Crane, compensating quadrant, Broady.. *305
- Crane, floating salvage *474
- Crane, 225-ton floating 474
- Cruiser Ying Swee, Chinese training. Coleman *231
- Curraghbour, grab dredger *202
- Cyprus, steam yacht..... *515
- Deflection method of calculating the strength of columns and stanchions. Murray *298, 351
- Design of propellers for geared turbines. Doig *435
- Destroyer Magon, launch of French..... *296
- Development of producer gas motor boats *484
- Developments in oil fuel burning, recent. Peabody *14, 60, 112
- Device to facilitate the coupling of cruising turbines. Yarrow *397
- Diesel engine, marine, full-power endurance test of *181
- Diesel-engined auxiliary sailing ship France *505
- Diesel engined tank ship Hagen, German *207
- Dipper dredge, four-yard, Col. M. B. Adams. King *280
- Dock, new Liverpool. Osborne 431
- Dorchester and Talbot for Chesapeake Bay service *158
- Dr. Adolf Schmidt, ore steamer *74
- Dredge for canal work, hydraulic suction *183
- Dredge, four-yard dipper Col. M. B. Adams. King *280
- Dredge, 8-cubic yard dipper *185
- Dredge Ithaca, hydraulic. Roane..... *187
- Dredge Niagara, hydraulic *196
- Dredge Wahalak, performance of Ellicott *199
- Dredger Curraghbour, grab *202
- Dredger Governor General Idenburg, suction cutter *200
- Dredger, North Western, grab *193
- Dredger Priestman *193
- Dredger, Tyne improvement. Coleman.. *198
- Dredger Volharding, Dutch suction. Van Brakel *193
- Dredgers for gold and tin *186
- Dredgers, suction *201
- Dredges, two 15-yard dipper for Panama. *194
- Dredging. Kindlund *188
- Drydock plant, new railway *105
- Dry-dock, 12,000-ton at Seattle, floating.. *289
- Dutch shipping exhibition. Van Brakel.. 383
- Eavestone, first long voyage of motor ship *78
- Economy of inclined dock elevator *55
- Edward T. Jeffery, steel screw ferryboat. Shipley *428
- Electrically-driven cargo boat Tynemount *520
- Electric welding. Grams 355
- Empirical method of screw propeller design. Doig *242, 302
- Equipment for unloading a special cargo at a German steamship pier..... *294
- Evelyn, oil-engined ferryboat..... *483
- Exhibition, first Dutch shipping. Van Brakel 383
- Experiments on the Fulton and the Froude. Peabody *7
- Feed water, filtering. Linch 240
- Ferryboat Edward T. Jeffery, steel screw. Shipley *428
- Ferryboat Evelyn, oil-engined..... *483
- Ferryboat Lescni, side wheel..... *470
- Ferryboat South Jacksonville..... *512
- Ferry Bridgit, large motor driven..... *477
- Ferry steamers propelled by geared turbines, trials of three..... *347
- Filtering feed water. Linch..... 240
- First Dutch shipping exhibition. Van Brakel 383
- First long voyage of motor ship Eavestone *78
- Fishing steamer Manhattan..... *100
- Five-masted auxiliary sailing ship France *505
- Floating crane, 225-ton..... 474
- Floating dock, German-built 25,000-ton... *287
- Floating dry-dock, 12,000-ton at Seattle. *289
- Floating salvage crane..... *474
- Fordonian, motor ship..... 295
- France, auxiliary sailing ship..... *505
- Frederick U. Robbins and car floats for the Erie Railway service..... *476
- Freight burtoning at marine terminals. H. McL. Harding..... *489
- Freight handling at steamship terminals.. *64
- Freight handling equipment at Kansas City municipal wharf *487
- Freight ship, motor-driven 146
- French battleship Courbet..... *408, 443
- French battleship Jean Bart..... 288
- French battleships Provence and Bretagne *328
- French destroyer Magon, launch of..... *296
- French liner Lutetia..... *246
- French warships, recent..... *93
- Fuel oils for use in marine Diesel engines 104
- German-built 25,000-ton floating dock.... *287
- German stern-wheel steamers. E. van der Werf *464
- Governor General Idenburg, suction cutter dredger *200
- Grab dredger Curraghbour..... *202
- Grab dredger, North Western..... *193
- Great Lakes steamers for coastwise service *47
- Gunboats, motor, for Colombia..... *469
- Hagen, German Diesel-engined tank ship. *207
- Hamburg, port of. Bubendey..... 453
- Handicap of the technical graduate. Everett *27
- Handling freight at a steamship terminal, *29, 204
- Harbor terminals at Halifax, N. S. Saunders 72
- Hermann Krabb, German-built motor ship. Gradenwitz *238
- How to increase marine terminal capacity H. McL. Harding..... *335
- Hudson river steamer Berkshire..... *282
- Hudson river steamer Washington Irving *275
- Hydraulic dredge Ithaca. Roane..... *187
- Hydraulic dredge Niagara..... *196
- Hydraulic suction dredge for canal work *183
- Idealia, motor yacht, equipped with Diesel engines *163
- Illumination of docks and wharves..... *383
- Imperator, Hamburg-American liner..... *216
- Inclined dock elevator, economy of..... *55
- Influence of air pumps on the military efficiency of turbine-driven warships. Morison *420
- Innisshannon, motor coaster of 400 tons deadweight carrying capacity..... *444
- Institution of Naval Architects..... 150
- Intercolonial railway harbor terminals at Halifax, N. S. Saunders..... 72
- Iquique, launch of Chilian submarine.... *295
- Isleford, British motor coaster..... *202
- Ithaca, hydraulic dredge. Roane..... *187
- Jean Bart, French battleship..... 288
- John A. Hooper, steam lumber schooner.. *72
- Joseph F. Bellows, Manhattan fishing steamer *100
- Jupiter, propelling machinery for collier. Emmet *323
- Kyle, mail and passenger steamship for Newfoundland. Coleman..... *292
- Large motor vessels..... 279
- Launch of Chilian submarine..... *295
- Launch of French destroyer Magon..... *296
- Launch of steamer Chaplain..... *437
- Launch of steel screw steamer Manchester Civilian 374
- Launch of the Aquitania..... *214
- Launch of the Hamburg-American liner Vaterland *247
- Launch of the Washington Irving..... 13
- Laying out propellers..... *399
- Lenape, Clyde line coastwise steamship.. *139
- Leschi, side-wheel ferry..... *470
- Lifeboats, power, Lundin decked type.... *248
- Light-draft motor boats for foreign waters *492
- Lighthouses and buoys of New York harbor. Pattison *1

- Liverpool dock, new. Osborne..... 431
 Lloyd's Report of Shipping for the year 1912-1913 510
 Lloyd's summary of world's shipbuilding 115
 Lumber-carrying steamer Adeline Smith, performance of *375
 Lumber schooner John A. Hooper..... *72
 Lundin decked type power lifeboats.... *248
 Lutetia, quadruple-screw French liner.... *246
 Lydonia, American-built steam yacht. Reed *66
 Magon, launch of French destroyer..... *296
 Mail and passenger steamship for Newfoundland. Coleman *292
 Manchester Civilian, launch of steel screw steamer 374
 Manhattan fishing steamer..... *100
 Marine Diesel engine, full-power endurance test of..... *181
 McAndrew's Floating School. McAllister *18, 40, 53, 122, 167, 212, 259, 310, 342, 393, 446, 493
 Marine oil engine, possibilities of. Lucas *56
 Marine turbine operation and economy. Dinger 70, 109
 Marine uses of electric storage batteries. Reynolds *157
 Matsonia, Pacific liner *431
 Mechanical gearing for propulsion of ships. Parsons *233
 Mine layers Cerbere and Pluton..... 375
 Monitors, armored river, for Brazil. Coleman *471
 Monorail system of handling lumber installed by the West Bay Naval Stores and Lumber Company *488
 Motor barges, shallow draft producer gas *467
 Motor boat, large commercial *121
 Motor boat, shallow draft passenger.... *486
 Motor boats, development of producer gas *484
 Motor coaster Isleford *202
 Motor coaster of 400 tons deadweight carrying capacity *444
 Motor-driven ferry Bridgit *477
 Motor-driven freight ship 146
 Motor ferryboat *354
 Motor gunboats for Colombia *469
 Motor lightship Burgermeister O'Swald. Wilson *155
 Motor ship Alkmaar, triple-screw. Wilson 32
 Motor ship California..... *523
 Motor ship Eavestone, first long voyage of *78
 Motor ship for the U. S. Navy, 5,000 horsepower 309
 Motor ship Fordonian 295
 Motor ship Hermann Krabb. Gradenwitz *238
 Motor ship Rolandseck of 1,500 B. H. P., single-screw. Wilson *102
 Motor ship Suecia, performance on service of the *346
 Motor ships, world's two largest. Wilson *291
 Motor tank ship Wotan *496
 Motor tug, an unusual *30
 Motor tug boat, a Mietz & Weiss..... *23
 Motor vessels for the German Navy. Wilson *332
 Motor vessels, large 279
 Motor yacht equipped with Diesel engines *163
 Narragansett and Manhattan, steamers for Central Vermont Railway..... *339
 Narragansett, towboat, general utility boat *31
 National character of the navy 338
 Niagara, hydraulic dredge *196
 North Western, grab dredger *193
 Note on some cases of "Fatigue" in the steel material of steamers. Thearle.. *349
 Oil-driven river vessel 160
 Oil engine in Great Britain, progress of. 218
 Oil engine, marine, possibilities of. Lucas *56
 Oil-engined coaster. Thow 6
 Oil-engined ferryboat Evelyn *483
 Oil fuel burning, recent developments in. Peabody *14, 60, 112
 Oil steamer Comte de Flandre, shallow draft *466
 Old-time war vessel on the Great Lakes.. *524
 Ore steamer Dr. Adolf Schmidt *74
 Osceola, stern recess wheel steamer *481
 Ovidio, work boat for Mexican waters... *486
 Pacific coastwise steamship Congress.... *283
 Panama Canal tolls..... 511
 Panama tolls, assessment of by net tonnage measurement an injustice..... 466
 Patchogue, twin-screw passenger vessel.. *75
 Pennsylvania, U. S. battleship *170
 Performance of the lumber-carrying steamer Adeline Smith *375
 Performance on service of the motorship Suecia. Knudsen *346
 Port development 41
 Port facilities for ships and cargoes. Donnelly 107
 Possibilities of the marine oil engine. Lucas *56
 Power lifeboats, Lundin decked type *248
 Preservation of metals for marine work. Lyon 151
 Producer gas motor barges, shallow draft *467
 Producer gas motor boats, development of *484
 Progress of the oil engine in Great Britain 218
 Progress of naval vessels....111, 251, 375, 519
 Propellers for geared turbines, designs of. Doig *435
 Propellers, laying out *399
 Propelling machinery for collier Jupiter. Emmet *323
 Provence and Bretagne, French battleships *328
 Quadrant crane, compensating. Broady.. *605
 Radium, commercial motor boat *131
 Railway drydock plant *105
 Rebuilding a double bottom under engines. Benvenuti *330
 Recent developments in oil fuel burning. Peabody *14, 60, 112
 Relaunching a vessel on the river Clyde. Turnbull *148
 Report, annual, of the chief of the Bureau of Construction and Repair 28
 Report, annual, of the Secretary of the Navy 4
 Rivadavia, trials of..... *445
 River boats, Chinese *475
 River steamers, engines and boilers, western. Burnside *459
 Robert M. Thompson, freight steamer .. *47
 Rolandseck, single screw motor ship of 1,500 B. H. P. Wilson..... *102
 Russian submarine, new. Coleman.... *106
 Safety of life at sea. Hillhouse..... 395
 Sailing ship France, auxiliary..... *505
 St. Patrick, twin screw passenger and cargo steamer *475
 Sample of old time engineering skill. Linch *98
 Schooner, steam lumber, John A. Hooper *72
 Screw propeller design, empirical method of. Doig *242, 302
 Scythian, trial trip of a steel screw steamer 334
 Seamless steel shallow draft motor launches *483
 See-and-Bee, side-wheel passenger steamer *252
 Selected marine patents.. *46, 91, 138, 182, 230, 273, 322, 368, 414, 458, 504, 544
 Shallow draft oil steamer Comte de Flandre 466
 Shallow draft passenger motor boat.... *486
 Shallow draft producer gas motor barges *467
 Shallow draft tug fitted with six propellers. Van Brakel 473
 Ship construction treated from a structural engineering standpoint. Steele.. *385
 Shipbuilding berth and 250-ton wharf crane at the Blohm & Voss shipyard.. *438
 Shipbuilding contracts. Peskett..... *440
 Shipbuilding for 1912-1913, Lloyd's report 510
 Shipbuilding in Japan 392
 Shipbuilding, Lloyd's summary of world's 115
 Shipbuilding, world's progress in 1912... 76
 Side wheel ferry Leschi..... *470
 Single screw molasses tank steamer Amolco *378
 Society of Naval Architects and Marine Engineers, annual meeting of 341, 488
 South Jacksonville, ferryboat..... *512
 Stability of ships—notes for commanders. Nicol *24
 Steam yacht Cyprus..... *515
 Steam yacht Lydonia. Reed *66
 Steam yacht Winchester, turbine-driven.. *145
 Steamer Adeline Smith, performance of. *375
 Steamer Alsatian, turbine *165
 Steamer Amolco, single screw tank *378
 Steamer Berkshire, Hudson river *282
 Steamer Chaplain, launch of *437
 Steamer Comte de Flandre, shallow draft oil *466
 Steamer Manchester Civilian, launch of steel screw 374
 Steamer Osceola, stern recess wheel.... *481
 Steamer St. Patrick, twin screw passenger and cargo *475
 Steamer Scythian, trial trip of a steel screw 334
 Steamer See-and-Bee side wheel passenger *252
 Steamer Tyler, Old Dominion Line's freight *369
 Steamer Washington Irving, Hudson river *275
 Steamers for Chesapeake Bay service... *158
 Steamers, modern German stern-wheel. E. van der Werf *464
 Steamers Narragansett and Manhattan for Central Vermont Railway *339
 Steamers on the Magdalena river, American *478
 Steamship Congress, new Pacific coastwise *283
 Steamship Congress, trial runs of..... *415
 Steamship Kyle, mail and passenger steamship for Newfoundland. Coleman *292
 Steamship Lenape, Clyde line coastwise.. *139
 Steamship Lutetia, quadruple screw French liner *246
 Steamship Matsonia, Pacific liner *432
 Steamship terminal in Philadelphia. Harding *119
 Steamship terminal, what constitutes a. McL. Harding 21
 Steamship Vaterland, launch of *247
 Steamship Westerdijk 382
 Steel harbor lighter Willard U. Taylor.. *162
 Stern recess wheel steamer Osceola.... *481
 Stern wheel steamer for the Congo.... *476
 Stern-wheel steamers, modern German. E. van der Werf *464
 Strength of columns and stanchions, deflection method of calculating. Murray *298, 351
 Submarine boat, a new type of..... *296
 Submarine Iquique, launch of Chilean... *295
 Submarine, new Russian. Coleman.... *106
 Subsidies aid Swedish shipping..... 118
 Suction cutter dredger Governor General Idenburg *200
 Suction dredge for canal work *183
 Suction dredger Volharding. Van Brakel *193
 Suction dredgers *201
 Suecia, performance on service of the motorship. Knudsen *346
 Tank steamer Amolco, single screw.... *378
 Technical graduate 40
 Technical graduate, the handicap of the. Everett *27
 Telpherage system, Westinghouse *29
 Terminal, new steamship in Philadelphia. Harding *119
 Terminal, what constitutes a steamship. McL. Harding 21
 Terminals, system for handling freight at *29
 Test of a 300 horsepower marine Diesel engine *181
 Tiger, British battle-cruiser..... 290
 Tolls, Panama Canal..... 511
 Towing launch Yasica, gasoline (petrol).. *475
 Towboat Narragansett, general utility boat 31

- Training cruiser Ying Swei, Chinese. Coleman *231
- Transfer of coal to and from ships..... *390
- Trial runs of the Pacific Liner Congress *415
- Trial trip of a steel screw steamer..... 334
- Trial trip of the Argentine battleship Rivadavia *445
- Trials of three ferry steamers propelled by geared turbines. Inglis..... *347
- Trials, official, of the French battleship Courbet *443
- Tug boat, a Mietz & Weiss, motor..... *23
- Tug Carioca, ocean-going twin screw for Brazilian Government *425
- Tug Frederick U. Robbins and car floats for the Erie Railway service..... *476
- Tug, shallow draft, fitted with six propellers. Van Brakel..... 473
- Tug, twin-screw for Brazilian navy. Coleman *333
- Tunnel stern motor passenger vessel..... 474
- Tunnel stern twin screw gasoline (petrol) towing launch Yasica *475
- Turbine-driven steam yacht Winchester.. *145
- Turbine operation and economy, marine. Dinger 70, 109
- Turbine steamer Alsatian for Allan Line *165
- Turbo-generator sets for Great Northern steamship Minnesota..... *514
- Tyler, Old Dominion Line's freight steamer *369
- Tynemouth, electrically-driven cargo boat *520
- United States battleship Pennsylvania... *170
- Vaterland, launch of Hamburg-American Liner *247..
- Volharding, Dutch suction dredger. Van Brakel *193
- Wahalak, performance of Ellicott dredge. *199
- Warships for the French Admiralty, recent *93
- Washington Irving, Hudson river steamer *275
- Washington Irving, launch of..... 13
- Watertube marine boilers. Ballin..... *517
- Welding, electric. Grams 355
- Westerdyk, steamship 382
- Western river steamers, engines and boilers. Burnside *459
- Westinghouse Leblanc refrigerating system *149
- Westinghouse telpherage system..... *29
- What constitutes a steamship terminal. McL. Harding 21
- White May, oil-driven river vessel 160
- Willard U. Taylor, steel harbor lighter.. *162
- Winchester, turbine-driven yacht..... *145
- Wolverine *524
- Work boat for Mexican waters..... *486
- World's progress in shipbuilding in 1912 76
- World's two largest motor ships. Wilson *291
- Wotan, motor tank ship..... *496
- Wreck statistics for 1912..... 445
- Yasica, tunnel-stern twin-screw gasoline (petrol) towing launch..... *475
- Ying Swei, Chinese training cruiser. Coleman *231
- Yukon river boat Alaska..... *472
- Calculations for strength of propeller blades and studs. Fotheringham..... *262
- Care of the dynamo on board ship. White 402
- Collision of the Colmar and Mavis..... *537
- Condenser baffle broken. Linch..... 33
- Condenser overhaul *537
- Condenser trouble *81
- Counterbore and packing ring..... 263
- Crank shaft, design of a. Bragg..... 35
- Cylinder liner, fitting in a new..... 34
- Design of a crank shaft. Bragg..... 35
- Diagram of formula for vertical C. B. Owen *262
- Difficulties with a waste pipe..... *173
- Disastrous accident to a beam engine. Williams 36
- Education of young mechanical engineer. Carnegie 314
- Electrolysis 312
- English ship draftsmen and technical graduates. Chapman 220
- Fitting in a new cylinder liner..... 34
- Freight train collides with steamboat. Baker 315
- Good way to block the ports in a steam chest 34
- Graphite in boilers..... 406
- "Hand drilling" 538
- Hand drilling. Haas..... *357
- Heroic method of shutting off the bottom blow 130
- How a broken feed pump rod was repaired *358
- How a little difficulty was overcome... *172
- Improvised device *264
- Iron versus steel. Linch..... 84
- Leak caused by careless boiler maker. Stein *451
- Leaky joint on a cylinder liner made tight *263
- Loose dowel pin in crank shaft..... 174
- Loss of vacuum in dredging pumps..... 315
- Making your own graphite paint..... 175
- Marine engineering in the good, old days 313
- Marine oil engine, possibilities of. Wentworth *129
- Mending a crank shaft in queer surroundings 358
- Monte Penedo, motor ship. Sulzer..... 222
- More comment on the possibilities of the oil engine. Frauenfelder..... 173
- Motor ship Monte Penedo. Sulzer..... 222
- Neglected sea danger. Auger..... 81
- Notes on lubricating oils..... 450
- Ports in steam chests, good way to block 34
- Propeller shafts—how to preserve and how to protect them..... 264
- Quick repairs on a broken valve guide... 312
- Repair of a fractured feathering eccentric *357
- Repair to a damaged A-bracket of a turbine steamer..... *401
- Repairing a broken valve stem..... *315
- Retarders for tubes..... *312
- Rust, action of..... 222
- Salving a sunken car float. Thayer, Jr.. *498
- Ship draftsmen and technical graduates, English. Chapman 220
- Shop kink 128
- Some repairs to a side-wheel steamer... *172
- Steam pipe troubles..... *404
- Strange happenings 84
- Strength of columns. Anderson *497
- Total breakdown of float feathering gear of a paddle steamer..... *498
- Towboat propeller wheels. Linch..... 359
- Unlooked-for stresses 449
- Value of life-saving appliances. Holland. 357
- Varied experience. Weddell..... *126
- Water gate fittings. Haas..... *174
- When a Dutchman is not a Dutchman.. 81
- Why cost of life-saving appliances on American ships has increased. Forbes.. 127
- Boiler graphite feeder. United States Graphite Co. *457
- Chipping, beading and calking hammer. Hardsocg Wonder Drill Co..... *137
- Compression yoke riveter "Hanna." Vulcan Engineering Sales Co..... *272
- Condenser packing tool. H. G. Kotten Co. *136
- Condensing turbine, new type of. Terry Steam Turbine Co..... *501
- Conveyor, patent elevator. Rowson, Drew & Clydesdale, Ltd..... *457
- Corrugated tubes, improved process for making. Schuchardt & Shutte..... *319
- Crude oil engine, "Advance." Bovine & Co., Ltd..... *364
- Crude oil semi-Diesel motor, "Original." Bergsunds Mek., Verkstads A. B., Stockholm *502
- Cumberland patent process for the protection of metals. Cumberland Syndicate *366
- Derrick, steel tubular. Sir W. G. Armstrong Whitworth & Co..... *227
- Direct-connected generating sets. Engberg's Electric & Mechanical Works... *229
- Direct unloader. Link Belt Co..... *180
- Double-cushioned non-return valve. Golden-Anderson *272
- Double davits "Burbridge." R. Lickey & Co. *227
- Dredge type boiler. Babcock & Wilcox Co. *226
- Dredger buckets. Edgar Allen & Co., Ltd. *228
- Drill speeders. Graham Mfg. Co..... *271
- Electric lighting of dredges. Bucyrus Co. *90
- Expansion joint, self-equalizing. E. P. Badger & Sons Co..... *270
- "Feralun." American Abrasive Metals Co. 91
- Fire extinguishing and fumigation by the Harker process. Schutte & Koerting Co. *320
- Fire pump, new centrifugal. Goulds Mfg. Co. *44
- Fire tools. Indestructo Fire Tool Co... *91
- Flexible coupling "Francke." Smith-Serrell Co. *271
- Flexible hose. H. W. Johns-Manville Co. *181
- Flow meter, improved. General Electric Co. *411
- Furnace bridge Wall, patent improved. R. H. Wager *137
- Gasoline electric generating sets. B. F. Sturtevant Co *268
- Gate valve, an improved. Lunkenheimer Co. *318
- Gears. Andre Citroen & Co..... *44
- Grease cup. William Powell Company.. *543
- Hose coupler. Chicago Pneumatic Tool Co. *271
- Hydraulic indicator "Hydro-Cater." Sterling Gauge Co..... *270
- Life-saving appliance. Hall and Spencer-Miller *542
- Lubricants, testing out. Stern, Sonneborn Oil Co., Ltd. 542
- Marine engines. Winton Gas Engine & Mfg. Co. *318
- Marine glue for paying deck seams. L. W. Ferdinand & Co..... *90
- Marine motors. Ailsa Craig Motor Co., Ltd. *503
- Metallic packing. Holmes Metallic Packing Co. *456
- Motor pumping plant. J. W. Brooke & Co. *228
- Nlsec Diesel engine, 100 horsepower. New London Ship & Engine Co..... *410
- Oxy-acetylene apparatus, ruins removed by. Alexander Milburn Co..... *456
- Packing "Monteagle." Lockwood Mfg. Co. *541
- Patent davit, "Martin." Sir W. G. Armstrong Whitworth & Co..... *367

COMMUNICATIONS

- A reader's comment on the recent contract for the turbine casings for the battleship New York. Forbes..... 451
- Action of rust..... 222
- An indicating curiosity. Haas..... 401
- Batti Wallah's Society..... 538
- Beam engine, disastrous accident to. Williams 36
- Bearing pressure on guide of paddle engines *401
- Below decks on the official trial trip of a cruiser 219
- Blemishes on machine work. Webster... *83
- Boiler, patching a. Christiansen..... 34
- Breaking gage glasses..... 172
- Broken bottom end bolt..... 537
- Broken reversing wheel. Hankin..... *452
- Burning of the Sarah Sands. Bradlee... *82
- Burst steam pipe. Suzara..... *449

ENGINEERING SPECIALTIES

- Blow-off valve. Eynon-Evans Mfg. Co... *273
- Boiler feed pumps. J. H. Hall & Sons, Ltd. *229

Photo drying rack, engineers. H. Schery & Co.	*44	Brazilian battleship Rio de Janeiro	132	German naval architects.....	38
Plug cock. National Tube Co.	*543	Bridgeport and Glacebay, shelter deck cargo steamers	265	Gladstone dock at Liverpool, new.....	361
Portable pump operated from incandescent lamp socket. Edwards Mfg. Co.	*411	Cairnross, geared turbine cargo steamer.	176	Glenmavis, Canadian Lake and canal....	361
Power computing slide rule. Keuffel & Esser	*136	Canadian Lake and canal steamer Glenmavis	361	Gablonz and Marienbad, steamers.....	539
Quadruple combination machine. Wiener Machine Co.	*367	Canadian lake steamer James Carruthers	500	Governor, Ramsey patent marine.....	37
Reducing valve "Quitetite." David Auld & Sons Co.	*226	Canal, proposed Rhine-North sea ship... ..	87	Greek torpedo boat destroyers Lion, Hawk and Eagle	37
Refrigerating machine. Audiffren-Singrun. H. W. Johns-Manville Co.	*269	Cargo ship France	499	Greenore, triple-screw Channel steamer... ..	131
Rivet sets for pneumatic hammers, Chicago Pneumatic Tool Co.	411	Cargo steamer, geared turbine	176	H. M. torpedo boat destroyers Shark, Sparrowhawk and Spitfire.....	316
Riveting hammers, "Imperial." Ingersoll-Rand Co.	*226	Cargo steamers, large single-deck. Bocler	86	Herman Sauber, self-discharging collier.	85
Roturbo rotary jet condenser. Rees.....	*42	Cassin and Cummings, U. S. S.	539	Coleman	85
Spur reducing gear. David Brown & Sons	*413	Ceramic, White Star liner	407	High mean referred pressures, desirability of using. Bragg.....	362
Steam trap, "Ideal." American Steam Gauge Co.	*501	Channel steamer Greenore	131	Hydraulic ash discharger of U. S. colliers Proteus and Nereus	540
Steel coupling for high or low speed shafts, an improved. McEwen Bros.	*42	Christian X, results of first voyage of the oil-engined ship	85	Hydraulic dredging on the upper Mississippi river. Monroe.....	408
Steel furniture, bulkheads, doors and trim for battleships and merchant vessels. Art Metal Construction Co.	*365	Coal handling plant at Fort William, Ontario	223	Indarra, twin-screw steamer.....	85
Stern wheel motor drive. Standard Motor Construction Co.	*502	Collier Jason	540	Infanta Isabel de Borbon, Spanish transatlantic liner	266
Tarred rigging. Plymouth Cordage Co.	180	Collier, self-discharging. Coleman.....	85	Injury to the hull of the U. S. S. Arkansas by grounding.....	454
Template board. Fay Manilla Roofing Co.	180	Comparative survey of battleship design	39, 176	Institute of Italian Naval and Mechanical Engineers	132
Thermit process. Goldschmidt Thermit Co.	*136	Comparative tests of three types of turbine-driven forced draft fans. London	87	Interim report of Committee on Boats and Davits	132
Thermit welding, marine repairs by. Goldschmidt Thermit Co.	*43	Competition in shipbuilding	38	Internal combustion engines, fuels for... ..	37
"Thread-Tight." Thread-Tight Co.	542	Cost of British and German warships....	131	Isle of Man geared-turbine steamer King Orry	*361
Truck, storage battery industrial. C. W. Hunt Co., Inc.	*543	Cruising element in warship machinery.	362	Italian Naval and Mechanical Engineers, Institute of.....	132
Turbo-alternator. Terry Steam Turbine Co.	*268	Cunard Canadian liner Andania	499	Italian tug boat Savoia, with Diesel engines	37
Valve, Lalor automatic stop. Lalor Fuel Oil System Co.	*541	Cunard Line, story of the	266	James Carruthers, large Canadian Lake steamer	500
Valve reseating machine. Leavitt Machine Co.	*456	Curtis turbines of the Scouts Marsala and Mino Bixio. Malfatti	133	Japanese battleships Kawachi and Settsu.. ..	131
Voltmeters and ammeters, miniature. Weston Electrical Instrument Co.	*268	Curzon, Hardinge and Elgin, geared turbine steamers	265	John Samuel White Diesel engine.....	316
Waterproofing the floors of piers.....	*43	Desirability of using high mean referred pressures. Bragg	362	Jujuy, Argentine torpedo boat destroyer.. ..	39
Welin davits on the Imperator. Welin Marine Equipment Co.	*364	Destroyer, armored and semi-submersible. Bywater and Prendergast	316	Juno, the motor ship.....	37
White mechanical system of burning fuel oil. Washington Engine Works.....	*269	Destroyer developments	265	Kaiser, German battleship of the Kaiser class	265
Wrench. F. E. Wells' Son Co.	*542	Destroyers Cassin and Cummings, U. S. S.	539	Kawachi and Settsu, Japanese battleships	131

MARINE ARTICLES IN THE ENGINEERING PRESS

Accidents to lake vessels.....	38
Ajax, steam trials of H. M. S.	317
Almirante Lynch, steam trials of Chilean torpedo boat destroyer	408
Anchor Line, story of	408
Andania, Cunard Canadian liner.....	499
Andrea Doria, launch of.....	223
Argentine torpedo boat destroyer Jujuy.. ..	39
Armored and semi-submersible destroyer. Bywater and Prendergast	316
Ash-discharger on U. S. colliers Proteus and Nereus	540
Auckland steamship terminals	539
Babcock & Wilcox boilers, recent experiences with. Rosenthal	177
Battleship Courbet, French	408, 443
Battleship design, comparative survey of	39, 176
Battleship Kaiser, German	265
Battleship King George V, British	317
Battleship Reshadieh, Imperial Ottoman.. ..	499
Battleships Espana, Alfonso XIII and Jaime I, new	454
Battleships, new French	361
Belt coal conveyor at Middlesbrough....	499
Boats and davits, interim report of committee on	132
Boeton, an up-to-date cargo ship	131
Boiler feed water, salt in. Wilson.....	453
Boiler, Yarrow	317

Dredging on the upper Mississippi river, hydraulic. Monroe.....	408
Dry dock at Manitowoc	176
E-4, H. M. submarine boat	133
Efficient maintenance of turbine machinery. Revord	453
Electric equipment and concrete construction at Auckland	539
Electric motor ship Tynemount	500
Electric power in railway and marine terminals	38
Electric propulsion of ships.....	177
Electricity, steering men-of-war by. Edwards	223
Emanuel Nobel, motor ship	223
Empress of Russia and Empress of Asia, quadruple screw steamers.....	454
Engines for the T. S. S. Macedonia, quadruple expansion	131
Espana, Alfonso XIII and Jaime I, new Spanish battleships	454
Estevan, Dominion steamer.....	39
Evaporator, Lillie quadruple, U. S. S. Dixie	362
Fanning and Jarvis, U. S. S. Gregory... ..	87
Fauvette, passenger and cargo steamer.. ..	223
Fire extinguishers for ships' use. Williams	407
Föttinger hydraulic transmission gear, 10,000 horsepower	87
Föttinger transmitter	499
France, cargo ship.....	499
French battleships, new.....	361
French Diesel engine.....	265
Fuels for internal-combustion engines... ..	37
Gantries at Nagasaki yard.....	224
Geared turbine cargo steamer.....	176
Geared turbine steamers for the South Indian railway	265
Generation and electrical transmission of power for marine transportation. Durnall	85
Greenore, triple-screw Channel steamer... ..	131
H. M. torpedo boat destroyers Shark, Sparrowhawk and Spitfire.....	316
Herman Sauber, self-discharging collier.	85
Coleman	85
High mean referred pressures, desirability of using. Bragg.....	362
Hydraulic ash discharger of U. S. colliers Proteus and Nereus	540
Hydraulic dredging on the upper Mississippi river. Monroe.....	408
Indarra, twin-screw steamer.....	85
Infanta Isabel de Borbon, Spanish transatlantic liner	266
Injury to the hull of the U. S. S. Arkansas by grounding.....	454
Institute of Italian Naval and Mechanical Engineers	132
Interim report of Committee on Boats and Davits	132
Internal combustion engines, fuels for... ..	37
Isle of Man geared-turbine steamer King Orry	*361
Italian Naval and Mechanical Engineers, Institute of.....	132
Italian tug boat Savoia, with Diesel engines	37
James Carruthers, large Canadian Lake steamer	500
Japanese battleships Kawachi and Settsu.. ..	131
John Samuel White Diesel engine.....	316
Jujuy, Argentine torpedo boat destroyer.. ..	39
Juno, the motor ship.....	37
Kaiser, German battleship of the Kaiser class	265
Kawachi and Settsu, Japanese battleships	131
King George V., H. M. S.	317
King Orry, Isle of Man geared-turbine steamer	361
Kingsbury thrust bearing. Smith.....	87
Kristianiafjord and Bergensfjord, Norwegian-American liners	408
Lake vessels, accidents to.....	38
Launch of the Andrea Doria.....	223
Launch of the New York. Stocker.....	224
Launching, new method of stopping a vessel after. Hiley.....	454
Lengthening of the Aberdeen liners Marathon and Miltiades.....	39
Leyland line, story of the.....	500
Lillie quadruple evaporator U. S. S. Dixie	362
Lion, Hawk and Eagle, Greek torpedo-boat destroyers	37
Liquid fuel as a source of energy for the propulsion of ships.....	176
Locating friction in our transportation systems	176
Marathon and Miltiades, lengthening of.. ..	39
Merchant ships, weight and freight of... ..	265
Misconceptions of propeller action	316
More ships than ever before. Vose	407
Motor ship Emanuel Nobel	223
Motor ship in service	407
Motor ship Juno	37
Motor ship Rolandseck	38
Motor ship Suecia. Wilson	265
Motor shipping, progress of	266
Naval architects, German	38
Naval construction, progress in Great Britain	86
New method of stopping a vessel after launching. Hiley	454
New York, launch of battleship. Stocker	224
New York pier problem	317
Norwegian-American liners Kristianiafjord and Bergensfjord	408
Oddie simplex feed pumps and air pumps	177
Oil burning in marine boilers, Wallsend-Howden system of	153

Oil-carrying steamers for the Eagle-Oil Transport Co., 15,000 tons.....	131	Torpedo boat destroyer Almirante Lynch, steam trials of Chilian	408	Proposed memorial to the late Sir William White	353
Oil-engined ship Christian X, results of first voyage of the	85	Transmitter, Föttinger	499	Safety at sea.....	301
Oil engines, weight of	224	Trials of H. M. battle-cruiser Queen Mary	316	Sale of the Fore River Shipbuilding Co.	220
Oosterdyk and Westerdyk, quadruple-screw steamers	499	Trials of H. M. S. Ajax.....	317	Shallow draft steamers in India.....	492
Ottoman battleship Reshadieh.....	499	Trials of the Chilian torpedo boat destroyer Almirante Lynch.....	408	Shipbuilding activities in Australia.....	251
P. & O. line, story of the	85	Turbine machinery, efficient maintenance of. Revord	453	Shipbuilding in Japan.....	26, 392
Pacific line, story of	223	Twin-screw passenger and cargo steamers Gablonz and Marienbad.....	539	Shipbuilding returns in United States, 17, 64, 100, 154, 202, 222, 251, 292, 327, 354, 398, 426,	466
Photomicrographic examination of broken crank shaft	453	Twin screw steamer Indarra	85	Shipping in the Philippines.....	232
Pier problem, New York	317	Tynemouth, electric motor ship.....	500	Steamer Mauch Chunk, derrick-wrecking	80
Polar Diesel engines	540	Typical ships: a harbor tug.....	499	Steel tug Senator Bailey.....	384
Professor Woerman line steamer.....	39	Typical ships: an up-to-date cargo ship..	131	Test of a Rumely marine oil engine....	23
Propeller action, misconceptions of....	316	Typical ships, III: a steam yacht.....	539	Tug boat for Atlantic Coast towing trade	389
Pumps, Oddie simplex feed and air....	177	Underwater horizontal hydraulic ash discharger on U. S. colliers Proteus and Nereus	540	United States battleship No. 39.....	452
Quadruple expansion engines for the T. S. S. Macedonia	131	U. S. Fleet collier Jason.....	540	U. S. destroyer Duncan.....	354
Quadruple screw steamer Reina Victoria Eugenia	176	United States torpedo boat destroyers Cassin and Cummings	539	United States destroyer trials.....	419
Quadruple screw steamers Empress of Russia and Empress of Asia	454	U. S. S. Fanning and Jarvis. Gregory..	87	United States naval appropriations.....	144
Quadrangle screw steamers Oosterdyk and Westerdyk	499	Unsinkability of modern sea-going ships. Flamm	224	Vessels classed by Lloyd's Register.....	101
Queen Mary, steam trials of H. M. battle-cruiser	316	Use of gases on ships for fire extinguishing and fumigation	39	Vesta, tank steamer.....	186
Ramsay patent marine governor	37	Wallsend-Howden system of oil burning in marine boilers	453	Westinghouse high-speed reduction gear.	69
Recent experiences with Babcock & Wilcox boilers. Rosenthal	177	Warship machinery, cruising element in.	362	William Froude, national tank.....	144
Reina Victoria Eugenia, quadruple screw steamer	176	Warships, cost of British and German... 131			
Reshadieh, Imperial Ottoman battleship..	499	Weight and freight of merchant ships... 265			
Resistance of submarines when submerged Rhine-North Sea ship canal, proposed....	87	Weight of marine oil engines.....	224		
Rio de Janeiro, Brazilian battleship.....	132	Weight factor in merchant ship design. Tobin	223		
Rolandseck, the motor ship	38	White Star liner Ceramic	407		
St. George, shallow draft river boat....	539	Williams-Janney variable speed gear....	224		
Salt in boiler feed water. Wilson.....	453	Woerman steamer Professor Woerman..	39		
San Gerrano, salvage and fire tug.....	37	Yarrow boiler	317		
Sapphire, typical steam yacht.....	539				
Savoia, Italian tug boat with Diesel engines	37				
Scientific ship designing. Goodrich.....	407				
Screw propellers. Dyson	453				
Screw propellers. Robertson	453				
Shallow draft river boat St. George.....	539				
Shallow draft steamer Comte de Flandre..	87				
Shark, Sparrowhawk and Spitfire, H. M. torpedo-boat destroyers	316				
Shear stress in a ship's structure. Suychiro	86				
Shelter deck cargo steamers Bridgeport and Glacebay	265				
Ship construction, some modern systems of	85				
Ship designing, scientific. Goodrich.....	407				
Shipbuilding at Londonderry	361				
Shipbuilding berth gantries at the Nagasaki yard	224				
Shipbuilding, competition in	38				
Shipbuilding premiums in Russia.....	86				
Some modern systems of ship construction	85				
Spanish battleships, new	454				
Spanish transatlantic liner Infanta Isabel de Borbon	266				
Speed gear, Williams-Janney variable....	224				
Stability, some further notes on approximate	265				
Steam turbines. Straight	362				
Steam yacht Sapphire.....	539				
Steamer Fauvette, passenger and cargo..	223				
Steamers Gablonz and Marienbad.....	539				
Steamship terminals at Auckland.....	539				
Steering men-of-war by electricity. Edwards	223				
Submarine boat E-4, British	133				
Submarines when submerged, resistance of Suecia, motor ship. Wilson	265				
Surface condensation, theory of. Morison	266				
Tests of three types of turbine-driven forced draft fans. London	87				
Theory of surface condensation. Morison	266				
Thrust bearing, Kingsbury. Smith	87				